



**Calhoun: The NPS Institutional Archive**  
**DSpace Repository**

---

Theses and Dissertations

1. Thesis and Dissertation Collection, all items

---

2019-12

**OPERATING METRICS THAT EFFECTIVELY AND  
EFFICIENTLY MEASURE CONTRACT  
PERFORMANCE OPERATIONS WITHIN AN ORGANIZATION**

Downer, Jammie

Monterey, CA; Naval Postgraduate School

---

<http://hdl.handle.net/10945/64143>

*Downloaded from NPS Archive: Calhoun*



Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

**Dudley Knox Library / Naval Postgraduate School**  
**411 Dyer Road / 1 University Circle**  
**Monterey, California USA 93943**

<http://www.nps.edu/library>



# NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

---

MBA PROFESSIONAL PROJECT

---

## OPERATING METRICS THAT EFFECTIVELY AND EFFICIENTLY MEASURE CONTRACT PERFORMANCE OPERATIONS WITHIN AN ORGANIZATION

---

December 2019

**By:** Jammie Downer

**Advisor:** E. Cory Yoder  
**Second Reader:** Jennifer A. Heissel

*Approved for public release. Distribution is unlimited.*

**THIS PAGE INTENTIONALLY LEFT BLANK**

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington, DC 20503.			
<b>1. AGENCY USE ONLY</b> <i>(Leave blank)</i>	<b>2. REPORT DATE</b> December 2019	<b>3. REPORT TYPE AND DATES COVERED</b> MBA Professional Project	
<b>4. TITLE AND SUBTITLE</b> OPERATING METRICS THAT EFFECTIVELY AND EFFICIENTLY MEASURE CONTRACT PERFORMANCE OPERATIONS WITHIN AN ORGANIZATION			<b>5. FUNDING NUMBERS</b>
<b>6. AUTHOR(S)</b> Jammie Downer			
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000			<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>
<b>9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A			<b>10. SPONSORING / MONITORING AGENCY REPORT NUMBER</b>
<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.			
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release. Distribution is unlimited.			<b>12b. DISTRIBUTION CODE</b> A
<b>13. ABSTRACT (maximum 200 words)</b>  The objective of this thesis is to identify and develop an efficient and effective metric that can be used by contracting organizations to better manage their internal operating procedures. This is achieved by reviewing naval organizations procurement processes, contract management, and governing doctrine used to manage program performance from cradle to grave. I also analyze how industry uses metrics to track performance and provide examples of dashboard metrics models for naval entities to implement within contracting departments. Through this analysis, I recommend a universal metric system that can be beneficial to contracting entities for measuring effectiveness and efficiency within their departments. Due to the broad scope of the topic, in terms of military branches, this thesis focuses primarily on Navy organizations.			
<b>14. SUBJECT TERMS</b> metrics, performance, contracts, Navy, compliance, management, effective, efficient, Fleet Logistics Center San Diego, Fleet Logistics Center Norfolk			<b>15. NUMBER OF PAGES</b> 63
			<b>16. PRICE CODE</b>
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU

THIS PAGE INTENTIONALLY LEFT BLANK

**Approved for public release. Distribution is unlimited.**

**OPERATING METRICS THAT EFFECTIVELY AND EFFICIENTLY  
MEASURE CONTRACT PERFORMANCE OPERATIONS WITHIN AN  
ORGANIZATION**

Jammie Downer, Lieutenant Commander, United States Navy

Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 2019**

Approved by: E. Cory Yoder  
Advisor

Jennifer A. Heissel  
Second Reader

Rene G. Rendon  
Academic Associate, Graduate School of Defense Management

THIS PAGE INTENTIONALLY LEFT BLANK

# **OPERATING METRICS THAT EFFECTIVELY AND EFFICIENTLY MEASURE CONTRACT PERFORMANCE OPERATIONS WITHIN AN ORGANIZATION**

## **ABSTRACT**

The objective of this thesis is to identify and develop an efficient and effective metric that can be used by contracting organizations to better manage their internal operating procedures. This is achieved by reviewing naval organizations procurement processes, contract management, and governing doctrine used to manage program performance from cradle to grave. I also analyze how industry uses metrics to track performance and provide examples of dashboard metrics models for naval entities to implement within contracting departments. Through this analysis, I recommend a universal metric system that can be beneficial to contracting entities for measuring effectiveness and efficiency within their departments. Due to the broad scope of the topic, in terms of military branches, this thesis focuses primarily on Navy organizations.



THIS PAGE INTENTIONALLY LEFT BLANK

# TABLE OF CONTENTS

<b>I.</b>	<b>INTRODUCTION.....</b>	<b>1</b>
<b>A.</b>	<b>RESEARCH OBJECTIVE .....</b>	<b>3</b>
<b>B.</b>	<b>RESEARCH QUESTIONS .....</b>	<b>4</b>
<b>C.</b>	<b>RESEARCH APPROACH.....</b>	<b>4</b>
<b>D.</b>	<b>ORGANIZATION OF RESEARCH .....</b>	<b>5</b>
<b>E.</b>	<b>SUMMARY .....</b>	<b>5</b>
<b>II.</b>	<b>BACKGROUND .....</b>	<b>7</b>
<b>A.</b>	<b>CONTRACTING PROCESS HIGHLIGHTS .....</b>	<b>7</b>
<b>B.</b>	<b>CONTRACT TYPES.....</b>	<b>10</b>
<b>C.</b>	<b>FACTORS IN SELECTING CONTRACT TYPE .....</b>	<b>15</b>
<b>D.</b>	<b>CONTRACT MANAGEMENT STAKEHOLDERS .....</b>	<b>16</b>
<b>1.</b>	<b>Contracting Officer (KO).....</b>	<b>17</b>
<b>2.</b>	<b>Program Manager (PM).....</b>	<b>18</b>
<b>3.</b>	<b>Contracting Officer Representative .....</b>	<b>18</b>
<b>4.</b>	<b>Quality Assurance Representative (QAR).....</b>	<b>18</b>
<b>5.</b>	<b>Budget/Finance Officer .....</b>	<b>19</b>
<b>6.</b>	<b>Legal.....</b>	<b>19</b>
<b>7.</b>	<b>Customer.....</b>	<b>19</b>
<b>E.</b>	<b>SUMMARY .....</b>	<b>20</b>
<b>III.</b>	<b>FRAMEWORK AND RESEARCH APPROACH .....</b>	<b>21</b>
<b>A.</b>	<b>DATA SAMPLE.....</b>	<b>21</b>
<b>1.</b>	<b>Navy Focus Groups.....</b>	<b>21</b>
<b>2.</b>	<b>Baseline Questions to Research Approach .....</b>	<b>22</b>
<b>B.</b>	<b>PRIVATE INDUSTRY PERFORMANCE METRICS MODELS .....</b>	<b>24</b>
<b>1.</b>	<b>Kazoo HR.....</b>	<b>24</b>
<b>2.</b>	<b>Blue Margin: The Dashboard Effect.....</b>	<b>25</b>
<b>3.</b>	<b>Data Pine.....</b>	<b>27</b>
<b>C.</b>	<b>DATA ANALYSIS.....</b>	<b>28</b>
<b>D.</b>	<b>SUMMARY .....</b>	<b>28</b>
<b>IV.</b>	<b>ANALYSIS .....</b>	<b>29</b>
<b>A.</b>	<b>BASELINE QUESTIONS .....</b>	<b>29</b>
<b>B.</b>	<b>RESEARCH FINDINGS FROM BASELINE QUESTIONS.....</b>	<b>30</b>
<b>C.</b>	<b>RESEARCH MODEL FROM PRIVATE INDUSTRY .....</b>	<b>32</b>
<b>1.</b>	<b>Model Purpose.....</b>	<b>32</b>

2.	First Dimension: Three Integrated Pillars of Success .....	32
3.	PNEX GEN Interface .....	34
4.	Second Dimension: Seven Stages of Procurement Planning .....	39
D.	SUMMARY .....	40
V.	CONCLUSION, RECOMMENDATION, AND FUTURE RESEARCH .....	41
A.	CONCLUSION .....	41
B.	RECOMMENDATION .....	42
C.	FUTURE RESEARCH .....	42
	LIST OF REFERENCES .....	45
	INITIAL DISTRIBUTION LIST .....	49

## LIST OF FIGURES

Figure 1.	Contract Obligations by Agency. Source: Schwartz et al. (2018). .....	2
Figure 2.	DOD Contract Obligations Dedicated to R&D, FY1999–FY2017. Source: Schwartz et al. (2018). .....	2
Figure 3.	Compliance Metrics. Source: Rollauer (2013). .....	3
Figure 4.	Contract Phases. Source: Pandita (2014). .....	7
Figure 5.	Six Stages of Procurement. Source: Garrett and Rendon (2005). .....	9
Figure 6.	Acquisition Team. Source: Wise (2014). .....	17
Figure 7.	Kazoo HR Dashboard. Source: Kazoo HR (n.d.). .....	24
Figure 8.	Kazoo HR Dashboard. Source: Kazoo HR (n.d.). .....	25
Figure 9.	Blue Margin Dashboard. Source: Thompson (2019). .....	26
Figure 10.	Blue Margin Dashboard. Source: Thompson (2019). .....	26
Figure 11.	Data Pine Dashboard. Source: Data Pine (n.d.-a). .....	27
Figure 12.	Three Integrated Pillars of Success. Source: Yoder (2012). .....	34
Figure 13.	Bamboo HR Personnel Dashboard. Source: Bamboo HR (n.d.). .....	35
Figure 14.	Data Pine Employee Performance Tracking Dashboard. Source: Data Pine (n.d.-b). .....	36
Figure 15.	RiskAnalytics Support Vendor Policy Dashboard. Source: RiskAnalytics Support (2016). .....	38

THIS PAGE INTENTIONALLY LEFT BLANK

## **LIST OF ACRONYMS AND ABBREVIATIONS**

COR	Contracting Officer Representatives
DOD	Department of Defense
FAR	Federal Acquisition Regulations
FLC	Fleet Logistics Center
KO	Contracting Officer
PALT	Procurement Administrative Lead Time
PM	Program Manager
QAR	Quality Assurance Representative
R&D	Research and Development
RFP	Request for Proposal

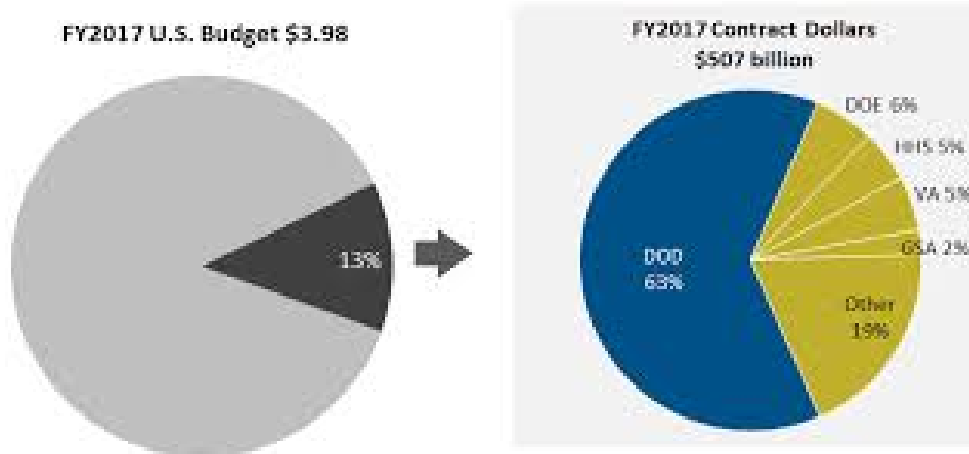
THIS PAGE INTENTIONALLY LEFT BLANK

## I. INTRODUCTION

How can we efficiently measure the performance of the constituents we contract goods and services to if we do not have effective metrics in place to manage our own internal performance? Managers of public funds should have a mountain of mechanisms readily available to assist in fostering an adaptable culture within the nucleus of the organization, but is this the case? This type of dynamic environment is not resistant to change and shows the ability to self-manage and to make internal processes better for production, but are we taking the hard look and being realistic? When your own processes are clearer and improved, you are better equipped to manage performance and compliance of external entities that are awarded contracts. This thesis takes a look at what metrics are currently being used to measure naval contracting departments' internal performance and gauges how effective or ineffective those metrics are in this complex environment.

The federal government spends billions of dollars on contracting goods, services, and for research and development (R&D) each year. Figure 1 depicts how much of the 2017 budget the government spent on contracts, to include a breakdown by federal agencies. As noted, the \$507 billion obligated on contracts was equal to approximately 13% of total FY 2017 budget, with the Department of Defense (DOD) spending more money (\$320 billion) than all other federal agencies combined (Schwartz, Sargent, & Mann, 2018). Figure 2 represents how DOD allocated funding for contracting purposes over an 18-year span, majority of the spending went toward purchasing products, services, and R&D. With that kind of money in rotation, we rely on contracting entities to be good stewards of taxpayers' dollars. The taxpayers expect employees who handle public funds to make sound judgements and maintain ethical practices. How does a contracting shop measure its processes to ensure it is meeting the needs of its customers' effectively and efficiently? Contracting entities have a duty to ensure their operations are tightly run; knowing where to trim and not to trim the fat off certain processes can help keep a steady robust workflow.





U.S. budget dollars in trillions, contract dollars in billions

Figure 1. Contract Obligations by Agency. Source: Schwartz et al. (2018).

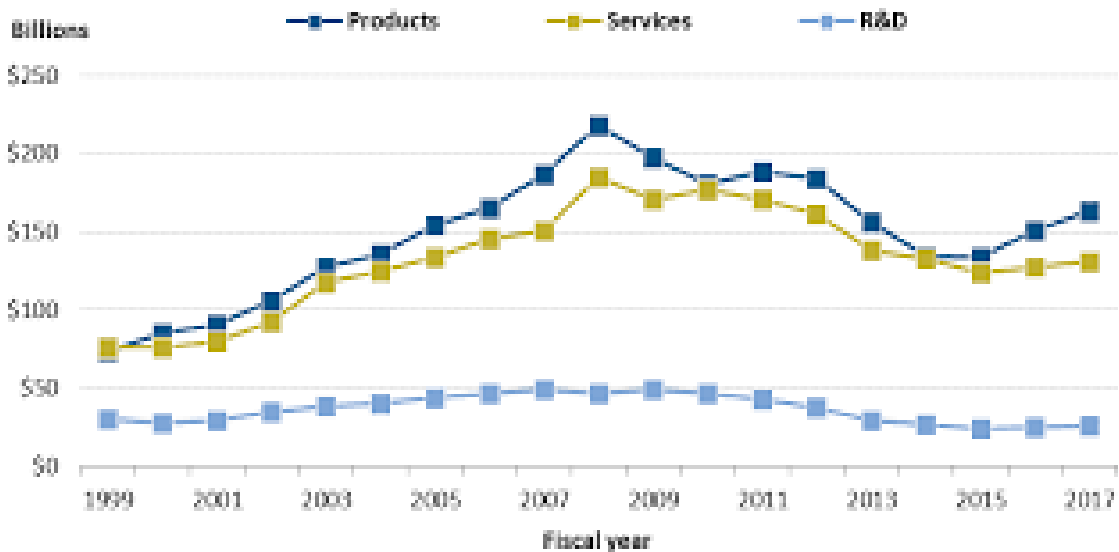


Figure 2. DOD Contract Obligations Dedicated to R&D, FY1999–FY2017. Source: Schwartz et al. (2018).

After examining web-based resources, reading literature, and researching contracting data on how measuring internal performance in a contracting shop is conducted, there seems to be a common theme that emerges, that in fact there is little to no literature on the subject. However, there are a vast majority of metrics to help organizations

manage compliance in contracting. In order to get better insight on the subject we must understand the difference between compliance and performance audits. Compliance audits are aimed to ensure that certain actions have been executed in accordance to governing regulations and organizational conditions. Performance audits focus solely on the effectiveness of the processes within an entity. Figure 3 demonstrates sample metrics used to measure compliance from Industry, the survey polled “189 senior-level executives, working in ethics, compliance, audit, risk management and corporate governance functions across 22 different major industries” (Rollauer, 2013).



Figure 3. Compliance Metrics. Source: Rollauer (2013).

## A. RESEARCH OBJECTIVE

The purpose of my study was to recommend an universal metric system that can assist in bridging the gap in the lack of available resources for contracting organizations. If we do not have a metric system, we are basically conducting business blindly. I conducted a comprehensive review into navy organizations and private civilian sectors to understand what metrics were being used to measure internal operating procedures success. With my data pool I can determine if there is a need for an universal metrics system or determine that metrics are already in place that are adequate to measure core controls. My research goal is to help aid contracting shops in an efficient and effective way to govern

their internal operations to ensure end-users requirements are being met expeditiously as possible.

## **B. RESEARCH QUESTIONS**

With my research I attempt to answer the following questions as they relate to the metrics used to measure performance in an operation as determined by the Navy:

Primary:

- What internal metrics can be used to efficiently and effectively measure contract performance operations within a Naval organization?

Secondary:

- What metrics are being used to measure internal contracting operations performance?
- How is the navy and private industry collecting and utilizing metrics for internal performance controls?
- What are the differences in compliance management versus performance management?
- How can we use the six phases of contract management to create a framework of metrics to govern internal processes?

## **C. RESEARCH APPROACH**

The approach used in this research consists of exploring the differences between performance and compliance metrics in relation to managing internal contracting operations. Then the focus will be on performance metrics; research and understand how navy and industry organizations are evaluating their perspective shops. Through the information gathered I will recommend a metric tool that can be used to assist commands in their internal contracting practices. This study uses information received through acquisition public databases, Fleet Logistics Center (FLC) Norfolk, Fleet Logistics Center

San Diego public websites and on-line web literature on private sectors metrics. This research was restricted by the sample pool and capacity of the entities mentioned above.

#### **D. ORGANIZATION OF RESEARCH**

The rest of this research is organized as follows: Chapter II provides the research background, including the contracting process, discussions on how contracting operations are conducted, and key stakeholders in contract management. Chapter III provides the framework and research approach utilized in this study. This includes related studies, reports, papers and publications that pertain to contracting entities efforts in managing their organizations. Chapter IV delve into the presentation of data and research methodology, which I examine and analyze the research findings. Finally, Chapter V summarizes the study, offers recommendations for policy makers based on the assessment, and outlines needed future research.

#### **E. SUMMARY**

In this chapter, I discussed the background on where contracting acquisition dollars are spent in the DOD, the purpose of the report, my research questions, the research approach, and organization of the report. The information provided depicts how important contracting is to the DOD and how heavy we rely on those outside products and services. Therefore, making the way we govern ourselves more important if the goal is to break the generational curse of fraud, waste, and abuse. My research questions will serve as the outline for this report. The next chapter will discuss the contracting process, contract types, factors in selecting contract types, and contract management stakeholders.

THIS PAGE INTENTIONALLY LEFT BLANK

## II. BACKGROUND

In Chapter II, the discussion starts with the contracting process, the various contract types, what factors influence the decision of selecting an appropriate contract type and the roles of key contracting management stakeholders.

### A. CONTRACTING PROCESS HIGHLIGHTS

The contracting process is a very complex organism that is interdependent on several individuals operating as a unit to accomplish a common goal. Arguably one of the most important facets of the contracting process is contract management. Contract management is the process of providing oversight to contracts by a contracting manager to ensure laws and regulations are met through contract conception, implementation, and closeout. It is a specialized profession with broad responsibilities that include managing contract features such as deliverables, deadlines, and contract terms and conditions. Contract management integrates the processes used to manage contracts throughout the contract life cycle while ensuring end users gratification. “Contract management affects many areas within an organization and can significantly influence its budget, operations, customer service, and public image” (Wilkinson, 2017, p. 2). The contract management process can be defined by three main phases shown in Figure 4: pre-award, award, post-award.



Figure 4. Contract Phases. Source: Pandita (2014).

1. Pre-award Phase: First phase of contract management. During this phase a buyer identifies requirements, performs applicable market research, conducts risk assessments and devises a contract approach regularly through a request for proposal (RFP) process.
2. Award Phase: Second phase of contract management. During this phase the buyer can have multiple offers or in the case of a sole source situation, have only one offer. The timeframe for this phase is contingent upon how many offers, how complex the requirement, and the type of contract. Also, during this phase buyers evaluate proposals against the criteria in the RFP to determine fair and reasonable and then award a contract.
3. Post-award Phase: Third and final phase of contract management. This is a vital phase in the contract management process. Contracts can linger in this phase for days or years depending on the complexity and technical aspects. It is important to continually monitor risk and performance during this period. A quality assurance team must ensure that contractual terms and conditions are met, there is good communication between all parties involved, and the contract performance align with the expected guidelines.

Contract management can be broken down even further from the overarching three phases of the life cycle discussed previously. There are six key stages that guide the acquisition planning process from cradle to grave. During these stages various acquisition team members work together to deliver a quality product to the end-user. Additionally, the stages can be used as a metric to measure internal performance within an organization. Figure 5 shows the six stages of procurement which are procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout.

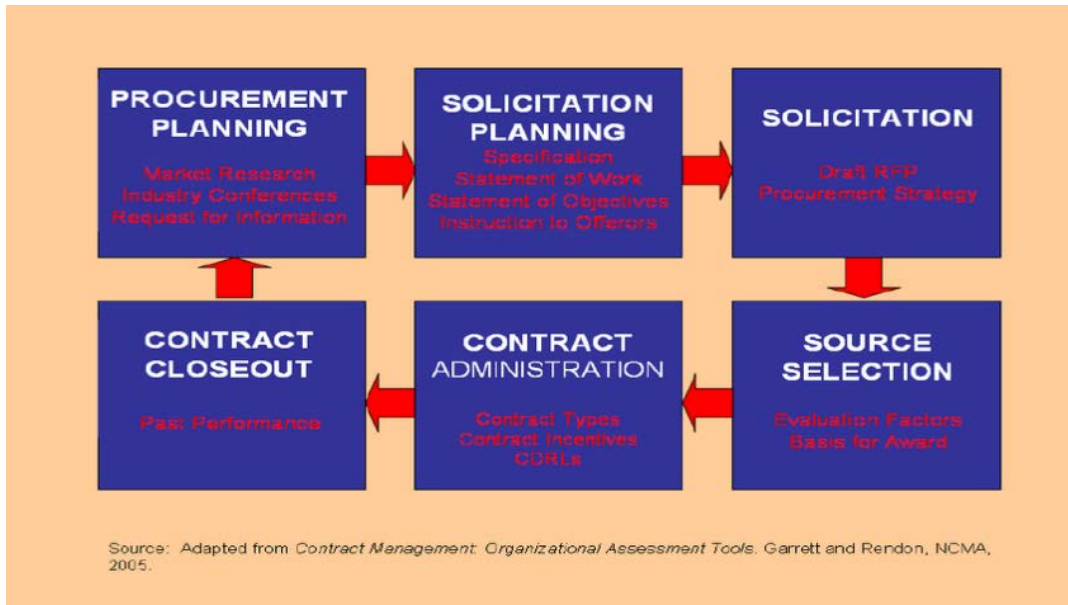


Figure 5. Six Stages of Procurement. Source: Garrett and Rendon (2005).

1. Procurement Planning: Involves the process of identifying the organizations needs and looking externally to identify what entity can best provide that good or service. During this stage, details on the type of project or service needed is discussed, industry models are analyzed, risk analysis data is produced, preliminary budgets are created and finance sources are reviewed (Wilkinson, 2017).
2. Solicitation Planning: Documentation is gathered in order to justify the need of the product or service. During this stage, purchasing techniques are determined, evaluation criteria is established, and discussions to narrow down a contract type (Wilkinson, 2017).
3. Solicitation: The receipt of proposals and bids from interested external parties on how to satisfy the requirements of the contract. During this stage, broadcasting of the procurement opportunity to gain competitive competition is key, if warranted conduct a pre-proposal conference, and keep documentation of interested parties (Wilkinson, 2017).



4. **Source Selection:** Proposals are collected from interested bidders in order to begin the process of determining who can provide the product or service best according to the criteria. Actions performed in this phase include cost negotiations, performance standards, guidance on specific timelines, and milestone expectations (Wilkinson, 2017).
5. **Contract Administration:** Confirming that both parties are adhering to contractual requirements and keep the press on communication flow. Main activities include directing a group of specialists to monitor the contractors cost, schedule, and performance (Wilkinson, 2017)
6. **Contract Closeout:** Verification of completed contracts by ensuring that all administrative affairs are handled and closed out properly. Main activities include receipt of final goods or services, documenting performance standards, conduct post contract audit, and maintaining lessons learned (Wilkinson, 2017).

The next section will discuss an important factor that can drive how the phases above are conducted, contract types are a key aspect in the contracting process.

## **B. CONTRACT TYPES**

Contract type is a phrase used to distinguish the variations in contract form, including payment arrangements and amount of risk (either to the government or to the contractor). They are unique in the fact that they govern the relationship between the customer and the supplier. The government and commercial organizations use a variety of contract types. Government contracts are generally separated into two main types, fixed-price and cost-reimbursement. There are other types of contracts that the government can utilize such as: indefinite-delivery, time-and-materials, incentive, labor hour, and letter contracts. The Federal Acquisition Regulation (FAR) Part 16 houses all the governance associated with the various contract types. Below I will discuss some of the most commonly used contract types utilized by the government.

- Firm-Fixed Price (FFP) Contract: This is arguably the most preferred contract that is used by the government. It is preferred because it establishes a concrete price that both parties agreed upon regardless of the cost incurred during manufacturing the good or providing the service. The responsibility is transferred to the contractor to maximize performance risk and keep the cost down, by doing so this will increase the profit that the contractor receives when the contract has been fulfilled. This contract type is used when the specifications are detailed, contractors are proficient at providing the goods or services and market conditions are steady.

- Fixed-Price Economic Price Adjustment (FPEPA) Contract:

Provides for upward and downward revision of the stated contract price upon the occurrence of specified contingencies. Economic price adjustments are of three general types:

1. Adjustments based on established prices. These price adjustments are on increases or decreases from an agreed-upon level in published or otherwise established prices of specific items or the contract end items.
2. Adjustments based on actual costs of labor or material. These price adjustments are based on increases or decreases in specified costs of labor or material that the contractor actually experiences during contract performance.
3. Adjustments based on cost indexes of labor or material. These price adjustments are based on increases or decreases in labor or material cost standards or indexes that are specifically identified in the contract. (Fixed Price Contracts, 2019)

This contract type is used when there is uncertainty within the market conditions or suspicion that labor conditions will be stretched beyond the specified performance timeframe.

- Fixed-Price Incentive Firm Target (FPIF) Contract: This is arguably one of the most difficult contract types to agree upon and implement. “It specifies a target cost, a target profit, a price ceiling (but not a

profit ceiling or floor), and a profit adjustment formula.” (Fixed Price Incentive Firm Target, 2019). This is a formula-based contract that is calculated once the supplier fulfills the terms of the contract. For example, anything charged below the ideal cost, the supplier will receive greater profits. than the profit target. If the example mentioned previously was reversed, the supplier would receive less money than the ideal target. If the cost surpasses the price ceiling then the supplier must cover the overage. This contract type is used with uncertain conditions dealing with labor or materials.

- Fixed-Price Award Fee (FPAF) Contract:

The work to be performed is such that it is neither feasible nor effective to devise predetermined objective incentive targets applicable to cost, schedule, and technical performance; the likelihood of meeting acquisition objectives will be enhanced by using a contract that effectively motivates the contractor toward exceptional performance and provides the government with the flexibility to evaluate both actual performance and the conditions under which it was achieved. (Incentive Contracts, 2019)

Award Fee amounts are calculated by comparing the supplier’ total cost, schedule, and technical performance against the award fee plan that houses the criteria for the award.

- Fixed-Priced Prospective Price Redetermination (FP3R) Contract:

Provides a firm-fixed price for a specific timeframe on contract deliveries or performance. Further price calculations can be negotiated during different stages of the ongoing contract.

Acquisitions of quantity production or services for which it is possible to negotiate a fair and reasonable firm fixed price for an initial period, but not for subsequent periods of contract performance. The contract may provide for a ceiling price based on evaluation of the uncertainties involved in performance and their possible cost impact. This ceiling price should provide for assumption of a reasonable proportion of the risk by the

contractor and, once established, may be adjusted only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances. (Fixed Price Contracts with Prospective Price Redetermination, 2019)

- **Cost-Plus-Incentive-Fee (CPIF) Contract:** This is a cost reimbursable contract that is utilized when the government presents very vague details on the requirements and there is uncertainty on the contractor's side in terms of labor hours, material costs and complexity. This contract is used when both sides can reach an agreement on a target cost and fee adjustment formula. Ideally you want to entice a supplier with a fair formula in order to provide an incentive to manage themselves effectively in terms of cost. The use of this contract puts the risk in the hands of the government because there are so many unknown factors.
- **Cost-Plus-Award-Fee (CPAF) Contract:** This contract uses the award fee plan to evaluate contractors performance periodically. Based on the periodic performance results, contractors have the ability to earn all or a percentage of the award fee and base fee pool. This type of contract is used when you cannot reasonably forecast incentive targets for the main components such as cost, schedule, and technically performances.
- **Cost-Plus-Fixed-Fee (CPFF) Contract:**

A cost plus fix fee contract is a cost-reimbursement contract that provides for payment to the contractor of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost but may be adjusted as a result of changes in the work to be performed under the contract. This contract type permits contracting for efforts that might otherwise present too great a risk to contractors, but it provides the contractor only a minimum incentive to control cost. (Cost Plus Fixed Fee Contracts, 2019)

- This contract type is used mainly when cost projections are unknown and if the expectation is for the contractors to conduct research and development for the government requirements.
- Indefinite Delivery/Indefinite Quantity (IDIQ) Contract: This is used when you have an indefinite quantity of supplies or service that is needed during a certain period of time at different intervals. There are low and high limits that must be negotiated in the beginning stages of the contract. These types of contracts can be pre-staged and are very helpful for events such as force majeure, where time is of the essence and support is needed quickly and expeditiously.
- Time and Materials (T&M) Contracts: This contract type provides goods and services under the conditions that direct labor hours are based off a static hourly rate to include cost of material, operating expenses, and salaries. Typically, this is only used when no other contract is appropriate for the requirement, if that is the case, it must also be stated in the terms and conditions that if the specified ceiling amount is surpassed, the contractor is responsible for the overage. Also, because there are no incentives for keeping costs low, there must be government supervision to keep the contractors honest in terms of cost management and labor efficiency.

In essence, understanding the different types of contracts is beneficial to all parties involved. The knowledge can help be fiscally responsible and good stewards of public funds on the government side and maximize profit for the contractors business, by ensuring that the correct contract type goes with the right situation. The next section covers the factors that are considered before selecting contract types.

### **C. FACTORS IN SELECTING CONTRACT TYPE**

There are several factors to consider when trying to negotiate the best contract type that fit the end users requirements but that is also in keeping with the rules and regulations of the government. The Contracting Officer has the responsibility to make such decisions and should at all cost take considerable precautions and evaluate on a basis with fair and good intentions. Selecting the right contract type is a key factor in kicking off the contracting life cycle. The FAR includes the following factors to consider:

- **Price Competition:** Price competition drives costs and can provide a better cost realism analysis when conducting research. The government favors fixed-priced contracts because you know a definite amount for the contract.
- **Price Analysis:** Conducting price analysis on market conditions is an important factor in determining a contract type. This research helps in making sure the government interests are at the forefront and making sure public securities are spent wisely.
- **Cost Analysis:** “In the absence of effective price competition and if price analysis is not sufficient, the cost estimates of the offeror and government provide the bases for negotiating contract pricing arrangements.” (Factors In Selecting Contract Types, 2019)
- **Type and Complexity of the Requirement:** The more complicated the requirement the more risk the government consumes, which means more dollars are increasing the bottom line of the contractors. Usually these types of contracts are for new technologies or services that are in the infant stages of development.
- **Combining Contract Types:** This happens when one contract type isn’t as cost efficient as it could be it two or more contracts were utilized for one requirement.

- **Urgency of the Requirement:** Time constraints of a contract can influence the decision maker to pick a contract type that can be done on an accelerated timeline. The downside is the level of risk that the government assumes in awarding this type for contracting.
- **Acquisition History:** As contractors become more proficient at providing a good or service, the risk assessment level is low. Also, good acquisition history is a positive and can count towards a company getting selected for a contract.

#### **D. CONTRACT MANAGEMENT STAKEHOLDERS**

Although a contract is a binding agreement between two interested entities, there are several different stakeholders that come together on the buyer and seller side of the contracts. Working together in an integrated environment with open lines of communication is an important ingredient to a successful recipe or in this case contract.

Government contract stakeholders are called upon to participate in developing the acquisition plan, drafting solicitations, writing sole-source justifications, writing scopes of work, serving on advance contract planning and source selection committees, recommending award of contracts, evaluating contract performance, and assisting in contract management. (Wilkinson, 2017, p. 4)

Stakeholders hold a great responsibility and no one person can attack the contracting process alone. It involves technical acumen and particular proficiencies from each team member to deliver quality products and services. This section will discuss Figure 6, the acquisition team, in detail.



Figure 6. Acquisition Team. Source: Wise (2014).

### 1. Contracting Officer (KO)

The KO is the only person appointed and authorized to bind, administer, alter, and cease contracts. They are designated by a warrant with thresholds and can only purchase up to the dollar amount authorized. Contracting officers must ensure compliance with regulations, applicable statutes, executive orders and pertinent guidelines on all contracts that are under their purview. Another sole authority of the contracting officers is to appoint CORs. According to the DOD COR handbook, “depending on the nature of the effort and agency procedures, a contract may require different types of contracting officers” (Director, Defense Procurement and Acquisition Policy, 2012, p. 26):

Procuring Contracting Officer (PCO), who handles all planning and contract actions up to and including award of a contract.... Administrative Contracting Officer (ACO), who assumes responsibility for administering the day-to-day contractual activities after award has been made; and ... Termination Contracting Officer (TCO), who assumes responsibility for negotiating any termination settlements with the contractor. (Director, Defense Procurement and Acquisition Policy, 2012, p. 26)



## **2. Program Manager (PM)**

A PM is a designated expert chosen in their field to take the lead on respective acquisition programs. “The role of the PM is to direct the development, production, and initial deployment (as a minimum) of a new defense system” (Brown, 2010, p. 14). They must consider acquisition expenses, schedules, and performance measures that fall within written directives. Also, they coordinate “the work of defense industry contractors, consultants, in-house engineers, logisticians, contracting officers, and others, whether assigned directly to the program office or supporting it through some form of integrated product team or matrix support arrangement” (Brown, 2010, p. 15). The PM’s ultimate goal is to ensure that end users requirements are met on time and as efficiently and effectively as possible.

## **3. Contracting Officer Representative**

The COR is a person designated in writing by the KO to perform key contracting duties or specialized function contracts. The designated individual must be approved by their management and government leadership as well. “The COR, who will have technical expertise related to the requirement, shall monitor the technical or performance aspects of the contract and perform other duties specified by the appointment/designation letter” (Director, Defense Procurement and Acquisition Policy, 2012, p. 27). The duties of the COR are vast and important to which the KO depends on their knowledge base during all aspects of the contracting cycle. Open flow of communication between these two positions are essential to contract management.

## **4. Quality Assurance Representative (QAR)**

“The QAR ensures the contractor is in compliance with contractual requirements, evaluates and documents contractor performance, follow up with the contractor on documented deficiencies, and provides input for the performance evaluation board through the ACO” (Brown, 2010, p. 27). The QAR operates in close proximity with the COR to keep information flow transparent and up the chain of command. They are an important asset in the post-award phase that provide checks and balances on both the buyers and sellers sides of a contract.

## **5. Budget/Finance Officer**

The budget/finance officer ensures that the appropriate funding is in place to support the requirement. They must also make sure the right amount of money is available before work can begin on a contract. The budget/finance officer must adhere to a host of rules and regulations and ensure depending on the type of contract that monies are dispensed accordingly to those guidelines.

## **6. Legal**

The legal representative is responsible for giving legal guidance to the acquisition unit and prepares and checks legal files for adequacy. This is an important facet of the contracting process in case there are protest or any disagreements on terms and conditions of the contract.

## **7. Customer**

The customer is the stakeholder that has the specific requirement whether it be for supplies or services; this is the point where the acquisition planning begins. The customer defines the requirement in as much detail as possible, make sure funding is in place or identify the color of money, ensure clear and concise communication, and foster positive relationships amongst other stakeholders. There should always be robust information flow between the customer, KO, COR and contractors.

A contracting cycle is only as successful as the stakeholders that comprises the procurement team. Stakeholders should foster and nurture those working relationships because at the end of the day everyone is shooting for a quality product. Regardless of your title or what position you hold the culture and environment should always be perceived as everyone has an integral part of the contracting process and held accountable to the standard. As described in the DOD COR handbook, “the key framework for a successful acquisition team is as follows: Partnership, Informed Decisions, Sound Planning, and Efficient Execution” (Director, Defense Procurement and Acquisition Policy, 2012, p. 28).

## **E. SUMMARY**

In this chapter, I discussed some key aspects that are apart of contracting entities repertoire to include: the contracting process, various types of contracts, factors to consider in selecting a contract type, and the duties of important stakeholders in contract management. The upcoming chapter will introduce the framework and research approach used to conduct the analysis for this thesis.

### **III. FRAMEWORK AND RESEARCH APPROACH**

The purpose of this research is to analyze the tools that are available and currently being used to measure contracting departments internal operating metrics. There is so much emphasis put on how to measure performance of contractors, I wanted to take a look at what is in place to efficiently and effectively measure interorganizational processes. After all, the internal dynamics of the organization have the most proximate influence over the organizations work processes and outputs (Cohen & Eimicke, 2008). This chapter addresses how I collected the data to answer my primary and secondary questions outlined in Chapter I. Although I was unable to get pertinent information from the naval entities, I am suggesting naval activities model private industry performance metrics systems, I included some examples of sample dashboards from three companies. I used the information gathered to formulate an opinion of what I think an effective and efficient system would entail.

#### **A. DATA SAMPLE**

My subject topic is very broad and the magnitude of the scope can be extensive. I have narrowed my research down to focus only on Navy contracting entities located at FLC San Diego and FLC Norfolk. I created a bank of questions that I thought were applicable in gaining knowledge on my research topic. I also used my pool of inquiries to help guide me to a hypothesis.

##### **1. Navy Focus Groups**

FLC San Diego provides logistics, business and support services to fleet, shore and industrial commands of the Navy, Coast Guard and Military Sealift Command and other joint and allied forces...NAVSUP FLC San Diego delivers combat capability through logistics by teaming with regional partners and customers to provide supply chain management, procurement, contracting and transportation services, technical and customer support, defense fuel products and worldwide movement of personal property. (Naval Supply Systems Command, n.d.-b, para. 1)

FLC Norfolk's mission is to provide global support to the Navy, Marines, and joint forces and allies with effective and timely logistics to maintain combat readiness posture.

These capabilities include full-spectrum logistics support to the Fleet; contracting support for both ashore and operational forces; support to regional commanders and Navy installations as the Regional Program Director for ashore logistics, and integrated support to industrial customers, NAVSEA and NAVFAC, for their logistics requirements. (Naval Supply Systems Command, n.d.-a, para. 1)

## **2. Baseline Questions to Research Approach**

1. What is the chain of command structure of FLC's contracting department?
2. What internal metrics are currently used to manage performance?
  - Web-based database: an electronic form of collected information accessed by the internet that can be used to manage people, metrics and processes.
  - Checklists: an aid used to assist with guidance and provide consistency while performing a task.
  - Publications: a source of useful material that provides information on a particular subject.
  - Assessments: an evaluation of how effective and efficient an organization, process, or person measure up to the standard.
3. What type of audits does the FLC's contracting department go through?
  - Audit occurrences: How often does an audit occur? (ex. monthly, semi-annually, annually)
  - Who conducts the audit? What entity is responsible for ensuring the organization complies? (ex. TYCOM, Afloat Training Group)
4. How does individual performance get tracked?

- Webtool dashboard: an internet-based tool used to depict performance status of an employee
  - Critical markers to measure performance: a published metric that communicates the standard to the employee. (ex. Numerical values, percentage values)
  - Incentives for reaching performance metrics: a reward system in place to show appreciation to employees. (ex. Time off, monetary compensation, letter of appreciation)
5. How does the workload get distributed?
- By threshold amounts: Does workload distribution depend on the amount a contract is worth?
  - By types of acquisitions
    - Acquisition of commercial items
    - Simplified acquisition procedures
    - Contract by negotiations
    - Special contracting methods
6. Are there any hardships associated with tracking internal performance metrics?

## B. PRIVATE INDUSTRY PERFORMANCE METRICS MODELS

### 1. Kazoo HR

Kazoo HR is a business that helps companies manage employee recognition, performance execution, and employee satisfaction. They provide web-based dashboards customized to a company's key performance indicators in order to provide all levels of management the overview necessary to keep a positive and productive culture within the workplace. They provide service to such companies as Kia, Hitachi, Allianz, Kronos, and Goodwill. Figures 7 and 8 are examples of Kazoo HR dashboards that could be beneficial to a contracting entity.

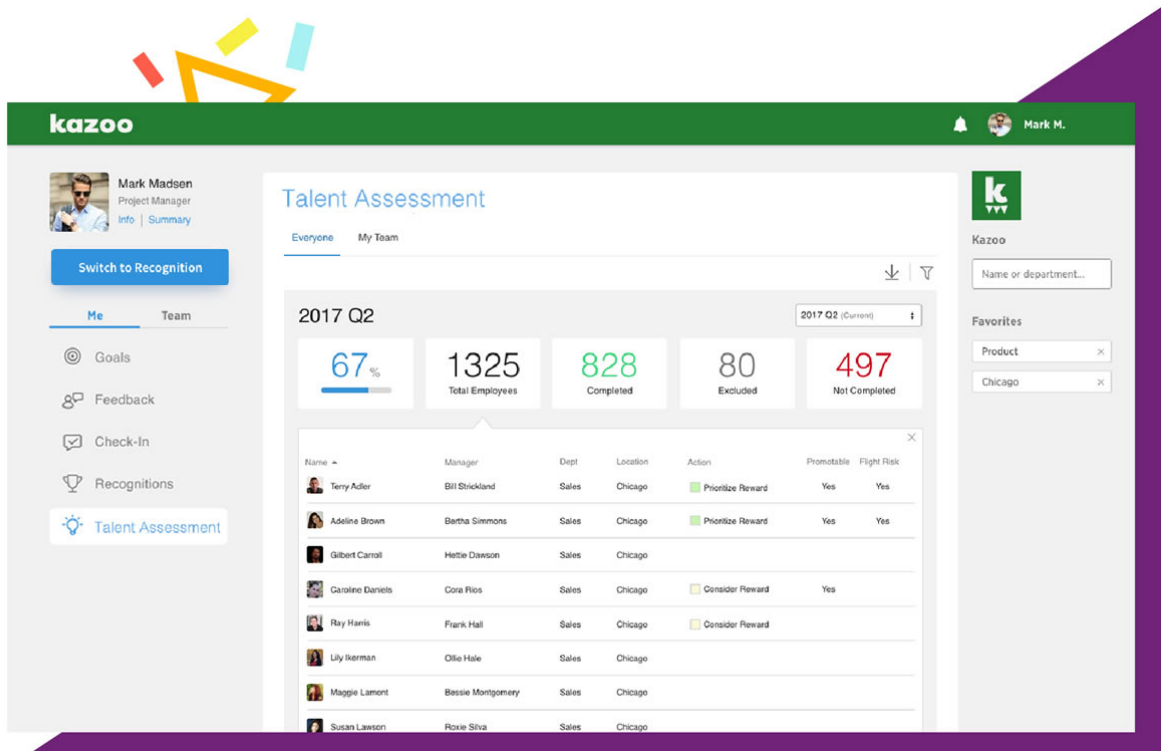


Figure 7. Kazoo HR Dashboard. Source: Kazoo HR (n.d.).

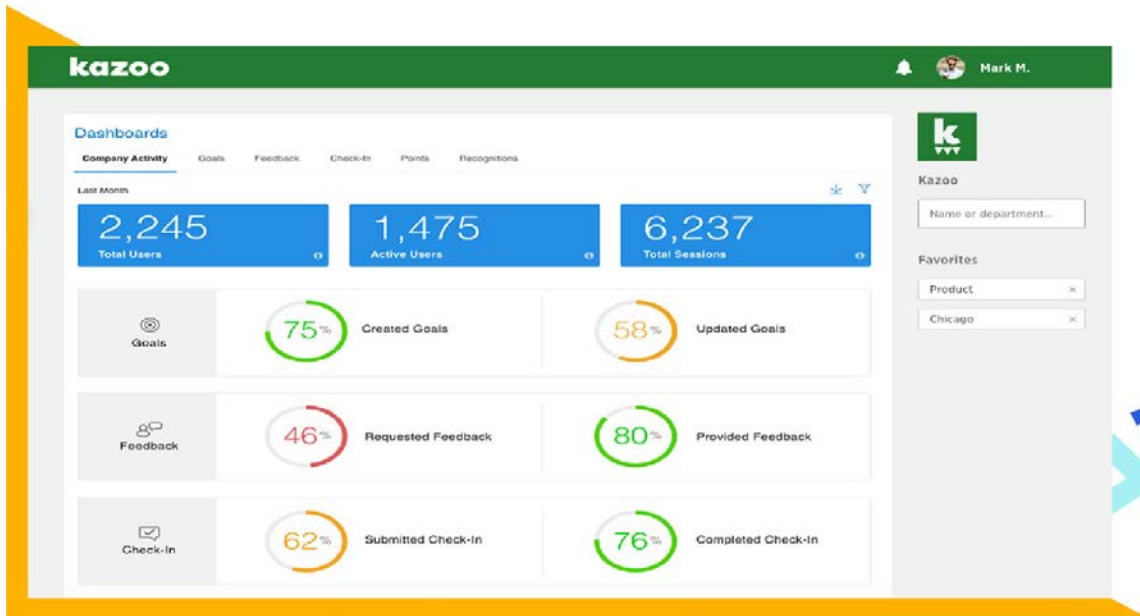


Figure 8. Kazoo HR Dashboard. Source: Kazoo HR (n.d.).

## 2. Blue Margin: The Dashboard Effect

Blue Margin provides companies with web-based tools within their industry to competitively compete against other companies by creating a culture of transparency within the organization. They provide “reliable reporting to optimize your strategy, processes, and people without creating another system to manage, risking poor ROI, wasting time and money, or being beholden to another software vendor” (Blue Margin, n.d). Blue Margin provide services to private industry companies such as: The Grammy’s organization, NALCO, Safe built, and Fitbit. Figures 9 and 10 are examples of Blue Margin’s dashboards.



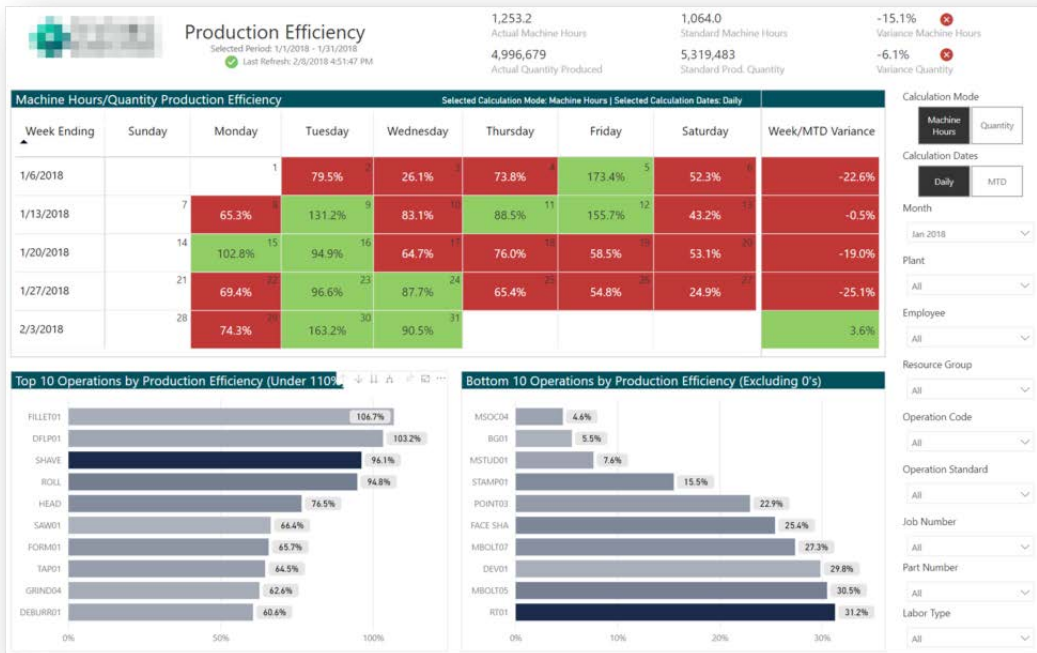


Figure 9. Blue Margin Dashboard. Source: Thompson (2019).

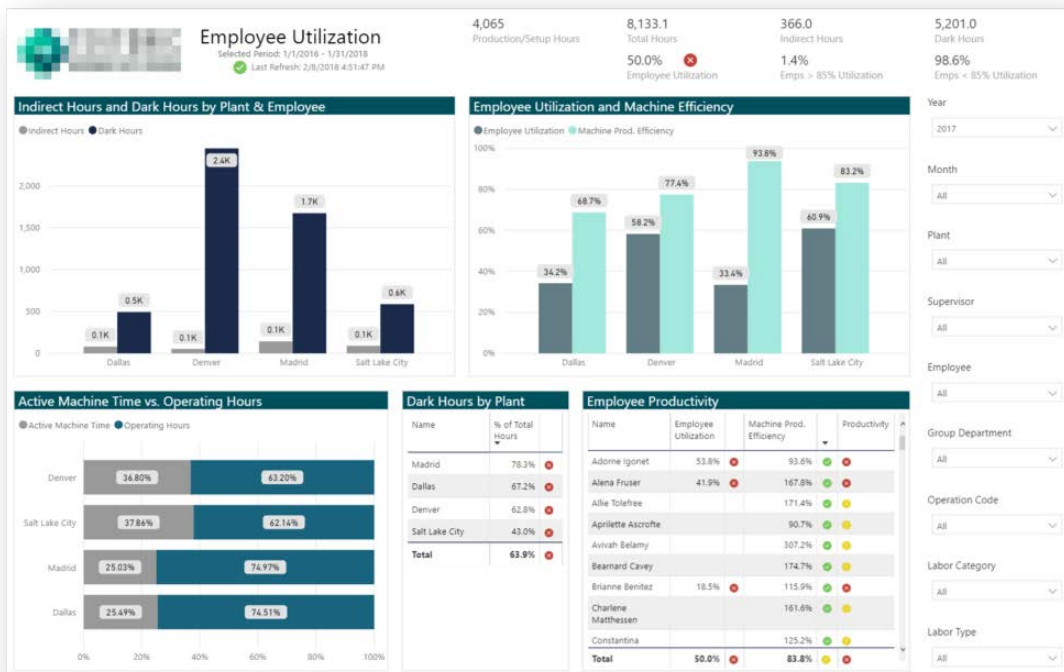


Figure 10. Blue Margin Dashboard. Source: Thompson (2019).

### 3. Data Pine

Data Pine provides business dashboard services for companies looking to consolidate and visualize metrics from their key performance indicators. Business dashboards can come in any form and can be grouped by function, industry, or platform. Data Pine provides services to The University of Texas at Austin, Fog Creek Software, OSRAM, and Kreditech. Figure 11 is an example of Data Pine’s business dashboard:

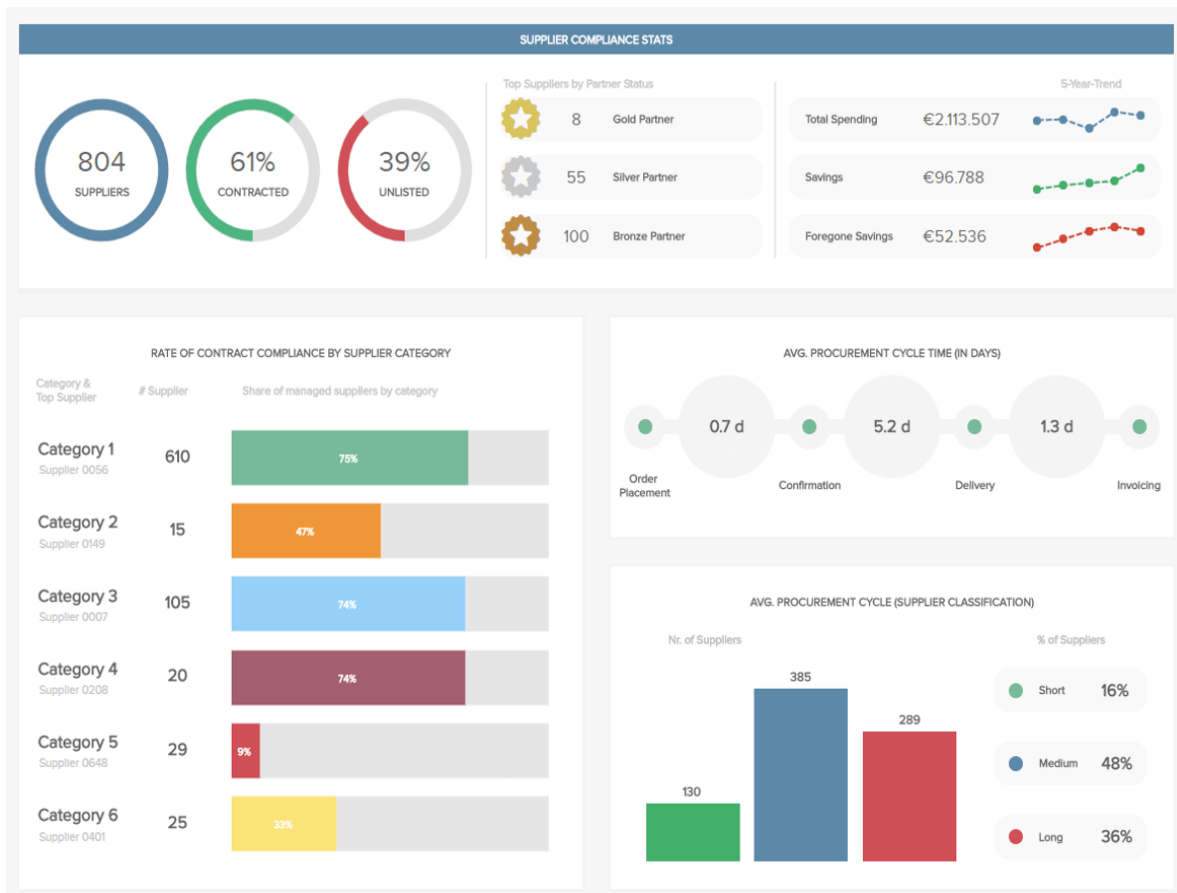


Figure 11. Data Pine Dashboard. Source: Data Pine (n.d.-a).

### **C. DATA ANALYSIS**

I used my set of foundation questions to lay the framework for researching the current practices for measuring internal capabilities at the FLC level. By analyzing a snapshot of existing infrastructure, I am able to identify any gaps or weaknesses that may exist or suggest areas of improvement. I will use private industry tools to drive home the point that government entities could benefit from adopting private industries use of web-based dashboards to manage internal controls.

### **D. SUMMARY**

In Chapter III, I identified the methodology of how the data was collected, the focus groups in which my research is based upon, presented my foundation questions and provided examples of private industry's performance dashboards. In Chapter IV, I will present my data, present a detailed analysis of my discoveries and make recommendations.

## **IV. ANALYSIS**

In this chapter, I will discuss the research gathered to address the baseline questions used in my thesis, explain my suggested two-dimensional web-based software, and provide examples of industry dashboard metrics that the navy could implement. The goal of this research was to collect data on internal metrics currently being used and evaluate whether the current practices in place were sufficient. However, I was only able to gain limited research information on the FLC's practices, so I will present that information and the rest of my thesis will be under the assumption that a better web-based program that tracks internal performance is necessary.

### **A. BASELINE QUESTIONS**

The starting point for my research consisted of six baseline questions:

- What is the chain of command structure of FLC's contracting department?
- What internal metrics are currently used to manage performance?
- What type of audits does the FLC's contracting department go through?
- How does individual performance get tracked?
- How does the workload get distributed?
- Are there any hardships associated with tracking internal performance metrics?

The emphasis on the baseline questions was to get a snapshot of the current structure and policies used at the FLC's level. The analysis and knowledge gained from the baseline questions would then help me form a hypothesis of what further action can be implemented to make the processes better for a contracting organization.

## **B. RESEARCH FINDINGS FROM BASELINE QUESTIONS**

The chain of command structure for contracting at the FLC's might vary depending on which location but in general you have at the Echelon II command at Naval Supply Systems Command Headquarters: Chief of the Supply Corp (Rear Admiral), who is also the Head of Contracting Activities; Assistant Commander for Contracting (Senior Executive Service); and the Deputy Assistant Commander for Contracting (Captain). Each major command has their own Head Contracting Activity who delegates procurement authority to subordinate organizations. The contracting chain of command: Code 200 Director (Commander); Code 200A Deputy Director (General Schedule-15); Code 210 Acquisition and Business Support Divisions Director (General Schedule-14). From there you have several military and civilian contracting specialists of all ranks and general schedule pay scales, respectively working within each code.

Internal metrics are needed to manage the wealth of throughput that contracting entities handle on a daily basis. The system that both FLC's primarily used to measure internal metrics is Procurement Administrative Lead Time (PALT). PALT is a web-based tool that is used to measure the time it takes from pre-request for proposal to post-request for proposal. Although it provides suitable information, just like with any other technological advances it comes with its issues and challenges. Other metrics used to measure performance of employees is through monitoring if they are in compliance with the Defense Acquisition Workforce Improvement Act certifications and continuous learning, observing how well they do in large contract milestones, data integrity, bridge actions, work in progress, closeouts, husbanding, and data input into the web-enabled system CPARS (Contractor Performance Assessment Reports).

In order to make sure any entity follows the rules and regulations that govern their practices, audits of some sorts are important to preserve the integrity of the organization. FLCs go through the Procurement Performance Management Assessment Program inspections which are conducted every three years. Naval Supply Systems Command Headquarters conducts the audits and rate the field contracting activities from unsatisfactory to highly satisfactory. Some of the assessed areas are: mission and organization, management of the contracting function, self-assessment/quality assurance,

contract planning, solicitation, source selection and post award functions, simplified acquisition procedures and special interest items. Also, another audit that is required to do internally is the Managers' Internal Control Program. This program is designed to have leadership evaluate independent reoccurring processes within their organization that are critical to the mission. Once the functional areas are known, leadership conducts a review to identify any deficiencies and material weaknesses, if deficiencies or weaknesses are identified an corrective action plan must follow.

Individual performance of non-uniformed government employees is tracked through the Defense Performance Management and Appraisal Program. This web-enabled unified system streamlines performance administration throughout the government. It has a standardize rating cycle set from 1 April though 31 March. It is mandated that each employer must have at least three performance elements with measurable aspects, of course more elements are authorized. Supervisors will rate employers based off the measurable criteria stated and assign a rating pattern that consist of three levels: Outstanding is a five, Fully Successful is a three, and Unacceptable is a one. Communication flow is a two-way manner, equally important for both the supervisor and the employee, which means the appraisal deadlines should not be the first time an employee is counseled on their work performance.

There is no standard way that workload is distributed amongst the contracting entities at FLC. Workload distribution is at the discretion of senior leadership, which in most cases is delegated down to a responsible party. In my experience with the FLCs, contract specialist was assigned a certain number of commands and would only work those requirements that came from their respective commands. For example, my contract specialist had my ship (USS TRUXTUN DDG-103) and about five other ships on the waterfront in Norfolk. My whole department head tour I only had one contract specialist, which was a civilian. I'm assuming there are other ways the workload is distributed to personnel maybe by contract type, threshold amounts, training credentials or the type of acquisition procurement method.

As with any program there are going to be hardships and obstacles to overcome. To overcome the hardships, you have to be able to know the requirements in which you are

measuring, develop a metric system and be able to self-assess to point out material weaknesses. In regard to the PALT system, an issue that arises is when the clock starts. FLCs use various PALT codes to track numerous requirements based off dollar value and complexity and sometimes the clock starts prior to receiving a fully ready procurement package. In other words, the timer begins before contract specialist can begin to work on preparing the solicitation and everything from that moment forward gets pushed to the right but the clock never resets. Another hardship is finding the correct metrics to gage success, depending on how an organization defines success will always influence what metrics makes sense. To add to the complexity of measuring internal performance is the constant need for an organization to improve their internal practices, which makes identifying metrics an ongoing fluid process.

## **C. RESEARCH MODEL FROM PRIVATE INDUSTRY**

### **1. Model Purpose**

I propose that the Navy use private industries web-based dashboard examples to create a universal system that can track contracting offices internal processes such as procurement lead times, mission requirements, and the performance of personnel. This type of technology would give contracting officials a way to manage internal performance efficiently and effectively by having the capability to analyze people and processes with a click of a button. This will also provide the metrics to see where improvements can be made to better provide service to the customers. The universal system, which for the purpose of this thesis, I will call Performance Next Generation (PNEX GEN) should be a user-friendly two-dimensional interface. The first dimension tracks the three integrated pillars of success (Yoder, 2012) and the second dimension tracks the seven stages of procurement planning.

### **2. First Dimension: Three Integrated Pillars of Success**

The three integrated pillars of success model acts as an organizational structure in which PNEX GEN's first dimension module can implement in theory. This part of the module will be organized by personnel, platform, protocol. Figure 12 depicts the Three

Integrated Pillars of Success. The breakdown of the pillars as framed by C. Yoder (2012) is as follows:

**Personnel** is the first pillar; [it] is the critical link between personnel, rank, position, credential and capability; combination of right people with right skill set in the right organization position; includes not only the K.O., but all personnel and stakeholders in the system; requires personnel description inventory and assessment against workload; examines quality and quantity mix and appropriateness for MEO mission; [and] works in harmony with platforms and protocols (cannot do one without the others). (Yoder, 2012, p. 15).

**Platforms** is the second pillar; hardware and tangible software systems that provide for analysis, decision-making, production, management and communication, examines quality and quantity mix and appropriateness for MEO mission; [and] works in harmony with personnel and protocols (cannot do one without the others). (Yoder, 2012, p. 16).

**Protocols** represents the third pillar; includes the rules, decision making framework, policies, and business models necessary to achieve the desired end-state (ideal customer support/constraints); protocols describe what should be done and generally how to achieve outcomes; best approach is defining and mapping protocol paths (SAP, FAR 12, FAR 15, monetary threshold, complexities); examines quality and quantity mix and appropriateness for MEO mission; [and] works in harmony with personnel and platforms (cannot do one without the others). (Yoder, 2012, p. 17)





Figure 12. Three Integrated Pillars of Success. Source: Yoder (2012).

### 3. PNEX GEN Interface

Once you select the option for first dimension, you will see the icon in Figure 12 above, management will have the option to click on either pillar. When the personnel pillar is chosen, a screen will pop up similar to Figure 13. Higher management has access to all hubs within their domains and middle to lower management can view personnel in their perspective departments. On the personnel webpage management can view a picture of the employees, access general employment information (ex. hire date, rank or GS position, birthday, recall information), access timesheet information, and employee position description. Having general information at the managers fingertips can allow for easy tracking of personnel and record management.

**Javier Cruz**  
Content Marketer

Request a Change | Settings

19 of 85 | Prev | Next

Personal Job Benefits Documents Timesheet Training Time Off Emergency Notes Assets More

**Personal** Reorder Fields

**Basic Information**

Employee #  Status

Name   Preferred Name

Birth Date  Age: 29

SSN

NIN

Tax File Number

SIN

Gender  Marital Status

**Address**

**Contact**

Phone

Figure 13. Bamboo HR Personnel Dashboard. Source: Bamboo HR (n.d.).

Also, under the personnel tier you can track the employees work performance. Management will be able to keep real time data on employee performance. PNX GEN can be set up to view daily, weekly, monthly, and yearly performance. This is vital information for management to use for positive/negative counsel, to determine performance leaders, manage workload capacity, and to fine tune internal processes. PNX GEN can offer the capability to track how long an employee has been working on a particular project, since it is real time data, there is no manipulating the system. If an employee locates a problem and it requires rework, there is an option to document the

whole process, that way we are getting a realistic timeline of the length of a contract. The system will also track how long requirements are sitting in a queue before actual work has been started by an employee. Figure 14 depicts a sample industry dashboard that correlates with employment performance tracking.

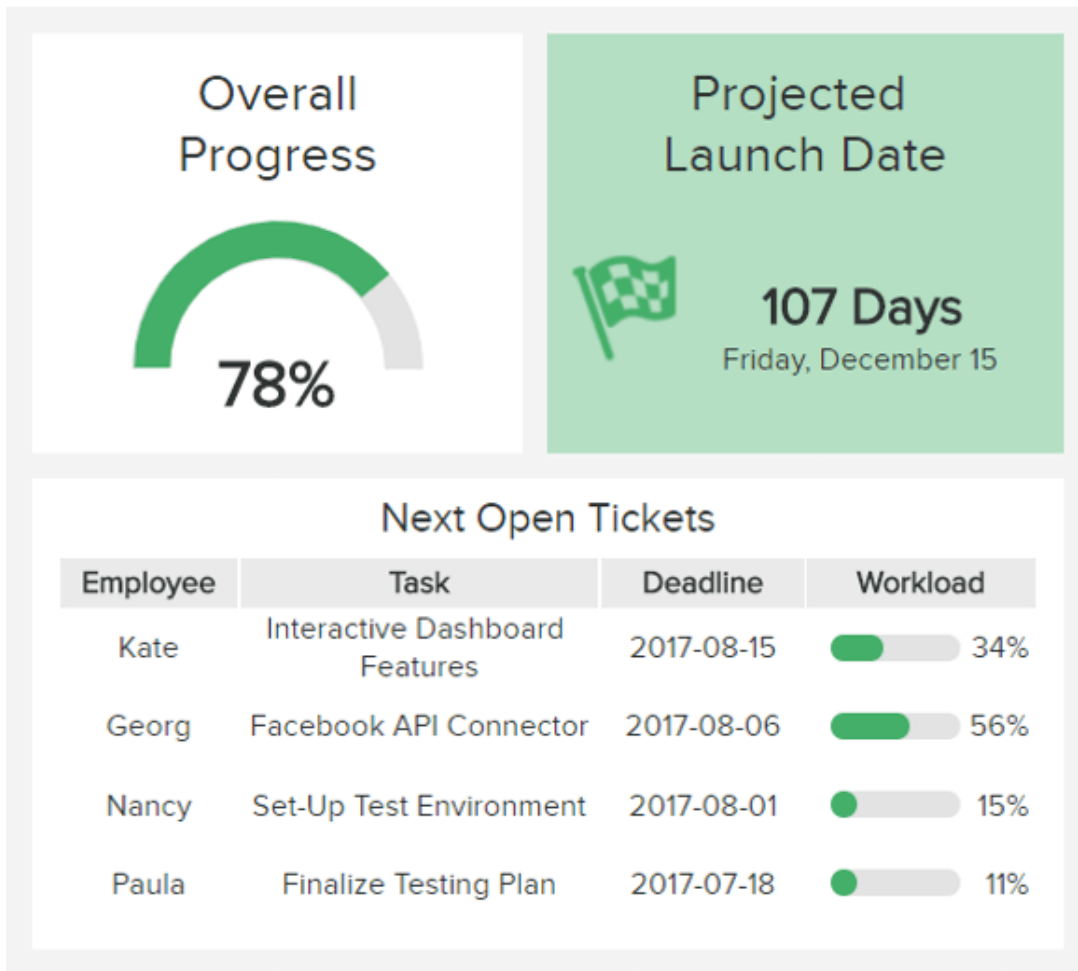


Figure 14. Data Pine Employee Performance Tracking Dashboard.  
Source: Data Pine (n.d.-b).

The Platform pillar option is the central hub for supporting contracting systems. The idea for this part of PNEX GEN is to consolidate as many supporting systems as possible, essentially creating a repository that have the capability to interface with each other. The platform pillar could house supporting systems such as:

1. Standard Procurement System is the standardized automated procurement system for use by the DOD procurement community. It is the next generation of procurement application software, that will link acquisition reform and common DOD procurement business processes with commercial best practices and advances in electronic commerce. (Assistant Secretary of the Navy for Research, Development & Acquisition, n.d. para. 1)
2. Earned Value Management System provides the government a measure of confidence that the contractors data is verifiable and can be relied upon when making program and contract decisions by maintaining effective management control systems and integrated technical, schedule, and cost planning processes. (Defense Contract Management Agency [(DCMA), 2019, p. 13)
3. Material Management and Accounting System maintains effective planning, controlling, and accounting for the acquisition, use, issuance, and disposition of material. DCMA, 2019, p. 15)
4. Property Management System a compliant management system protects the government's interests and assets by maintaining procedures, records, and methodologies necessary for effective and efficient management and control of government's property. (DCMA, 2019, p. 17)

The goal is to cut out on administrative time by having to access these systems separately and cut out duplication efforts, which can increase efficiency and productivity within contracting departments.

The protocols pillar is where management and employees will go to find the rules, regulations and policies (ex. FAR) that govern the contracting process. It is also where personnel can find checklist and assessment regulations. Having procedural guidance in a central location easily accessible can help an organization maintain good order and discipline and potentially aid contracting offices to do well on audits or inspections. Figure 15 shows an example of an industry dashboard that contracting offices can imitate.

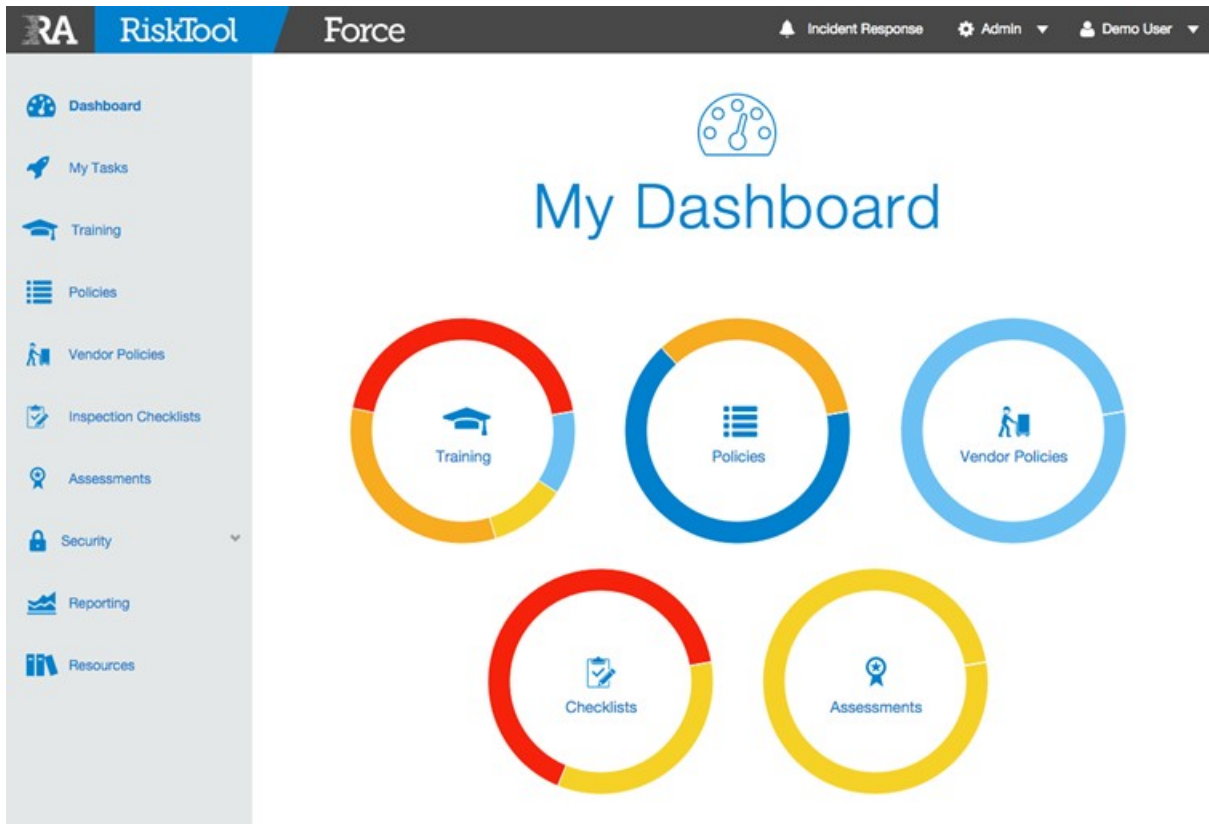


Figure 15. RiskAnalytics Support Vendor Policy Dashboard. Source: RiskAnalytics Support (2016).

PNEX GEN can also be set up to track employees by what procurement method they used to administer a contract and if they were responsible for supplies or services. Managers would click on the policies option, then access the FAR option which will bring up the FAR sections. Once management click on a FAR section, there is an option to access the personnel associated with the particular FAR section. The most common FAR part procurement methods are as follows:

- FAR part 12 Acquisition of Commercial Items: provides guidance and policy on how to procure commercial items from private industry.
- FAR part 13 Simplified Acquisition Procedure: provides guidance and policy on the procurement of goods, services, commercial items and construction. The amount must stay below the micro-threshold.

- FAR part 14 Sealed Bidding: provides guidance and policy on the procurement of goods and services through closed bids, price in this procurement is the driving factor for award as long as proposals are responsible in nature. There are no discussions with bidders with this procurement.
- FAR part 15 Contracting by Negotiation: provides guidance and policy on competitive and sole source procurement.
- FAR part 17 Special Contracting Methods: provides guidance and policy on contracts that don't fall into the traditional procurement methods.

#### **4. Second Dimension: Seven Stages of Procurement Planning**

The second dimension of PNEX GEN allows you to track and monitor your department by the six stages of procurement planning, which were previously defined in Chapter II. The ability to access individual stages in the process can provide an overview on the overall health of contracts and provide answers to questions that management need for reporting purposes. When a stage is queried you can see the individuals that are currently working on a contract in that particular stage, you can view exactly where employees are in the process, you can see how long an employee has been in that stage, and the date at which the next critical milestone should be entered. Also, PNEX GEN will let management input their own key performance indicators or they have the option to use the standard timelines that are in accordance to regulations. This system is not just a tool for management personnel, employees have access to the same information that can be used to manage their performance and workload. The most important aspects the second dimension brings is the ability to access the metrics on internal processes, the ability to pinpoint bottlenecks, and the access to real time snap shots into contract specialist performance. Managers can use this information to provide corrective actions such as implementing training and team building exercises for employees. It can also be used promote positive rewards to employees that are hitting critical markers on time and go above and beyond the call of duty.

However, to fully get the true picture of a contracting process from cradle to grave, I propose adding another stage into the process. Before stage one procurement planning, I propose implementing stage zero requirements generation if applicable. This stage will start at first breath of a purchasing need. General information can be annotated on who is the requesting entity, preliminary research on funding sources, checking records for purchasing history, and early market research. Implementing this stage in the process can help make the contracting process smoother as it goes through the process and it can essentially create chaos early which is a good method to use in the contracting arena. This is an extra step for the contracting specialist but it can pay big dividends in the end in terms of work efficiency and effectiveness for the individual and contracting entity as a whole.

#### **D. SUMMARY**

In Chapter IV, I presented the research answers to my baseline questions, suggested a web-based software called PNEX GEN, and provided examples of industry dashboard metric models that contracting entities could use for managing their internal composition. In my final chapter, I will provide a recommendation for senior leadership to adopt industry standards in capturing performance metrics and developing an universal procurement metric system for contracting organizations.

## **V. CONCLUSION, RECOMMENDATION, AND FUTURE RESEARCH**

### **A. CONCLUSION**

The Federal Government has increased spending in essence of billions of dollars on contracting goods and services to privatized companies outside the domain of the government. These were once capacities that the government use to own within its own bureaucracy but relinquished to meet the vast growing changes and needs of public interests. Now that the government is reliant on privatized contracting to meet demands of the taxpayers, it has become the burden of the government to manage the contracts administered to ensure we are being good stewards of taxpayers' dollars. In order to effectively and efficiently manage private entities that retain these contracts we must first retain the capacity and knowledge of how to perform the work in-house and then we can be effective administrators of contractor management outside our organization. This will also increase the integrity of the contractors performance because they know there are protocols in place to ensure compliance.

Contracting departments are at the forefront of the rising epidemic of contracts being administered to private industry at an alarming rate. It seems as though higher authority is only concerned with contractor compliance and performance by evidence of all the literature, doctrine, reports and instructions on the subject. What is lacking is the same effort put into measuring contractor compliance is not being poured into measuring contracting internal processes. There is not an emphasis on taking a hard look at the processes in-house to ensure that what is currently being implemented is the most effective and efficient way. The contracting process is a complex system that involves constant communication flow, several governing platforms, mixed skill sets from key stakeholders, and external working relationships with contractors. In order to ensure that their internal processes are conducive to support key objectives of the DOD, which are mission readiness and public interest, contracting departments need the tools and metric systems to govern their internal practices accordingly. There should be an universal web-based application for contracting entities to access that houses as many of those complex parts as possible,



essentially a “one stop shop” for contracting personnel. Within this system there needs to be performance metrics in place and easily readable that all contracting hierarchical authority up and down the chain of command can get a snapshot of the health and wealth of a program or contract at any time.

This research paper initially set out to find the foundation of where contracting offices stood on internal metrics and the systems used to manage the performance of their perspective departments. The intent was to identify, if any, capability gaps in the process and expound on how to make the process better or keep current practices with minor adjustments. Unfortunately, that research approach was inconclusive. My thesis then turned into my personal opinion on how I think contracting officials could better manage internal processes with the understanding this system does not exist present day.

## **B. RECOMMENDATION**

In this study, I reviewed organizations procurement processes, contract management, and governing doctrine used to manage program performance from cradle to grave. I realized there were a vast majority of metrics to help organizations manage compliance in contracting. However, when it comes to managing internal performance controls there seems to be a gap in the amount of available resources. A universal metric system could help bridge the gap and provide contracting organizations with another source to govern their internal operations efficiently and effectively to ensure end-users requirements are being met expeditiously as possible. Based off this research, I recommend the Navy look into procuring services from industry that can tailor a universal web-based system for contracting departments. I also recommend using the various examples of industry dashboards that measure internal metrics to ensure internal practices are meeting the standard.

## **C. FUTURE RESEARCH**

My thesis has the potential for follow-on future research. Since I was unable to get the information needed to establish a true representation of where contracting departments fair in measuring their internal practices, there is still room for establishing that baseline. There is also an opportunity to touch on areas that will make a universal system better than

what was mentioned in my research. Another aspect is cost, there can be follow-on research to capture the cost associated with procuring a system of this magnitude from industry. There are some heavy cost drivers in developing a system of this scope to include, the consolidation of stand-alone contracting platforms into one that interface with one another, the compacity of cloud space needed to hold the information, and services required to keep the web-based program in service.

THIS PAGE INTENTIONALLY LEFT BLANK

## LIST OF REFERENCES

- Assistant Secretary of the Navy for Research, Deveopment & Acquistion. (n.d). Standard Procurement System. Retrieved December 12, 2019, from <https://www.secnav.navy.mil/rda/OneSource/Pages/eBusiness/DON%20eBusiness%20Solutions/SPS.aspx>
- Bamboo HR. (n.d.). Retrieved December 12, 2019, from <https://www.bamboohr.com/employee-database-software/>
- Blue Margin. (n.d.). Retrieved November 20, 2019, from <https://www.bluemargin.com/industries>
- Brown, B. (2010). *Introduction to defense management*. Fort Belvoir, VA: Defense Acquisition University Press.
- Cohen, S., & Eimicke, W. (2008). *The responsible contract manager*. Washington, DC: Georgetown University Press.
- Cost Plus Fixed Fee Contracts, F.A.R. 16.306 (2019). Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104492>.
- Data Pine. (n.d.-a). Examples and templates: Procurement. Retrieved December 12, 2019, from <https://www.datapine.com/dashboard-examples-and-templates/procurement>
- Data Pine. (n.d.-b). KPIS that every IT manager should use. Retrieved December 12, 2019, from <https://www.datapine.com/kpi-examples-and-templates/it>
- Defense Contract Management Agency. (2019, April 28). *DCMA Manual 2301-01: Contractor business systems*. Washington, DC: Author.
- Director, Defense Procurement and Acquisition Policy. (2012). *Department of Defense COR handbook*. Washington, DC : Office of the Under Secretary of Defense for Acquisition, Technology, & Logistics.
- Factors In Selecting Contract Types, F.A.R. 16.104(c) (2019) Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104492>.
- Fixed Price Contracts, F.A.R. 16.203-1 (2019). Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104878>.
- Fixed Price Contracts With Prospective Price Redetermination, F.A.R. 16.205-2 (2019). Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104492>

- Fixed Price Incentive (firm target) Contracts, F.A.R. 16.403-1 (2019). Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104492>.
- Garrett, G. A., & Rendon, R. G. (2005). *Contract management organizational assessment tool*. Ashburn, VA: National Contract Management Association.
- Kazoo HR. (n.d). Retrieved December 12, 2019, from <https://www.kazoohr.com/product/continuous-performance-management>
- Incentive Contracts, F.A.R. 16.401(e) (2019). Retrieved from <https://www.acquisition.gov/content/part-16-types-contracts#i1104492>.
- Naval Supply Systems Command. (n.d.-a). Navsup Fleet Logistics Center Norfolk. Retrieved December 9, 2019, from <https://www.navsup.navy.mil/public/navsup/flcn/about/>
- Naval Supply Systems Command. (n.d.-b). Navsup Fleet Logistics Center San Diego. Retrieved December 9, 2019, from <https://www.navsup.navy.mil/public/navsup/flcsd/>
- Pandita, S. K. (2014, May 19). General overview of contracts management and contract closing [Powerpoint Slides]. Retrieved from <https://www.slideshare.net/SatishkPanditaCMCons/contract-closing-ppt>
- RiskAnalytics Support. (2016, March 08). Introducing vendor policies. Retrieved from <https://support.riskanalytics.com/support/solutions/articles/12000004269-introducing-vendor-policies-released-3-3-16->
- Rollauer, T. (2013, September 4). Are companies using the right metrics to measure compliance risk? *The Wall Street Journal*. Retrieved from <https://deloitte.wsj.com/riskandcompliance/2013/09/04/are-companies-using-the-right-metrics-to-measure-compliance-risk/>
- Schwartz, M., Sargent, J. F., & Mann, C. T. (2018, July 2). Defense acquisitions: How and where DOD spends its contracting dollars. Retrieved from Federation of American Scientists: <https://fas.org/sgp/crs/natsec/R44010.pdf>
- Thompson, J. (2019, September 26). Blue print data blog. Retrieved from <https://www.bluemargin.com/power-bi-full-blog/power-bi-dashboard-examples-for-private-equity-companies>
- Wilkinson, J. W. (2017). *Contract Management body of knowledge*, 5th Edition. Ashburn, VA: National Contract Management Association.
- Wise, J. B. (2014). Contract management: Key role past performance reporting plays in the acquisition lifecycle [PowerPoint Slides]. Retrieved from <https://slideplayer.com/slide/5692561/>

Yoder, E. C. (2012). Establishing metrics, measuring, and managing performance.  
Unpublished PowerPoint slides.

THIS PAGE INTENTIONALLY LEFT BLANK

## **INITIAL DISTRIBUTION LIST**

1. Defense Technical Information Center  
Ft. Belvoir, Virginia
2. Dudley Knox Library  
Naval Postgraduate School  
Monterey, California